

Applicant : Robert L. Stone  
Serial No. : 10/720,581  
Page : 2

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the present application:

1 (original): A sortation assembly for sorting articles and depositing articles into trays, said sortation assembly comprising:

a plurality of chutes movable along a continuous loop, said chutes being movable along and over a plurality of sort stations and being operable to deposit articles to trays positioned at said sort stations, said sort stations being configured to support a tray thereon for filling of the tray by said chutes; and

at least one sensor positioned at each of said chutes, said at least one sensor being operable to detect a fill level in a tray at a respective one of said sort stations, said at least one sensor being spaced from the tray positioned at said respective one of said sort stations and being spaced from the articles deposited in the tray, said at least one sensor being operable to generate an output signal indicative of the fill level within the tray, said chutes being operable at least partially in response to said output signal of said sensors.

2 (original): The sortation assembly of claim 1, wherein said at least one sensor is operable to detect a distance between said sensor and the tray or articles in the tray positioned at said respective one of said sort stations to determine a fill level within the tray, said at least one sensor being operable to generate an output signal indicative of said distance.

3 (original): The sortation assembly of claim 1, wherein said at least one sensor comprises at least one diffuse electronic sensor.

4 (original): The sortation assembly of claim 3, wherein said at least one diffuse electronic sensor comprises multiple diffuse electronic sensors.

Applicant : Robert L. Stone  
Serial No. : 10/720,581  
Page : 3

5 (original): The sortation assembly of claim 4, wherein said multiple diffuse electronic sensors are operable to generate an output at different trigger points or fill levels, said output signal of each of said multiple diffuse electronic sensors being indicative of a different fill level of the tray.

6 (original): The sortation assembly of claim 3, wherein said output signal comprises an analog output which varies in voltage as the fill level of the tray changes.

7 (original): The sortation assembly of claim 1, wherein said at least one sensor comprises a laser sensor operable to generate said output signal in response to multiple distances between said sensor and articles within the tray.

8 (original): The sortation assembly of claim 7, wherein said laser sensor is operable to generate said output signal in response to multiple trigger points.

9 (original): The sortation assembly of claim 1 including a tray present sensor positioned at a respective one of said sort stations, said tray present sensor being operable to detect a presence of a tray at said respective sort station and being operable to generate an output signal indicative of a presence of a tray at said respective sort station, said chutes being operable at least partially in response to said output signals of said tray present sensors.

10 (original): The sortation assembly of claim 9, wherein said tray present sensor is spaced from the tray positioned at said respective sort station.

11 (original): The sortation assembly of claim 10, wherein said tray present sensor is operable to detect a distance between said tray present sensor and a tray positioned at said respective sort station.

Applicant : Robert L. Stone  
Serial No. : 10/720,581  
Page : 4

12 (original): The sortation assembly of claim 11, wherein said tray present sensor comprises a diffuse electronic sensor.

13 (original): The sortation assembly of claim 1, wherein said at least one sensor is generally fixedly mounted to said chute.

14-26 (canceled).

27 (new): The sortation assembly of claim 1, wherein said at least one sensor is operable to generate said output signal in response to multiple trigger points indicative of different fill levels of the tray.